



## Anuradha Wickramarachchi

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🔗 Scholar Uid: u-rFXwUAAAAJ

A passionate PhD candidate keen on learning state-of-the art and contributing towards the progress of humanity at large. Capable of teamwork and working under pressure.

### WORK EXPERIENCE

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November 2018 – present

#### Tutor

Tutoring Relational Database Systems.  
School of Computing, Australian National University

December 2017 – July 2018

#### Junior Consultant

Role of conducting research, student supervision and teaching.  
Department of Computer Science and Engineering, University of Moratuwa, Sri Lanka

July 2016 – December 2016

#### Software Engineer (Intern)

CAKE LABS Pvt LTD, Sri Lanka

### EDUCATION

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August 2018 – present

#### PhD Candidate in Computer Science

School of Computing, Australian National University  
• Computational biology and bioinformatics

2014 – 2017

#### BSc (Hons) Computer Science and Engineering

Department of Computer Science and Engineering, University of Moratuwa, Sri Lanka  
• GPA of 4.01/4.2  
• First class with deans list for all 8 semesters

### TRAINING

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Stanford Online

#### Machine Learning

An online non-credit course authorized by Stanford University and offered through Coursera

NVIDIA

#### Getting Started with AI on JETSON NANO

Offered through NVIDIA deep learning institute

Udemy

#### PyTorch for Deep Learning with Python Bootcamp

Training on NumPy, Pandas and PyTorch including CNNs, LSTMs and GPU optimization.

### PUBLICATIONS

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First Author

- **LRBinner: Binning Error-Prone Long Reads Using Auto Encoders**  
Anuradha Wickramarachchi, Yu Lin (WABI 2021) DOI: 10.4230/LIPIcs.WABI.2021.11
- **PlasLR Enables Adaptation of Plasmid Prediction for Error-Prone Long Reads**  
Anuradha Wickramarachchi, Vijini Mallawaarachchi, Lianrong Pu, Yu Lin (Under review at PLOS CB, Presented at GLBIO 2021)  
DOI: 10.1101/2021.06.14.448306
- **GraphPlas: Refined Classification of Plasmid Sequences using Assembly Graphs**  
Anuradha Wickramarachchi, Yu Lin (EEE/ACM Transactions on Computational Biology and Bioinformatics 2021) DOI: 10.1109/TCBB.2021.3082915
- **MetaBCC-LR: Metagenomics Binning by Coverage and Composition for Long Reads**  
Anuradha Wickramarachchi, Vijini Mallawaarachchi, Vaibhav Rajan, Yu Lin (ISMB 2020)  
DOI: 10.1093/bioinformatics/btaa441

- **GraphBin2: Refined and Overlapped Binning of Metagenomic Contigs Using Assembly Graphs**

Vijini G Mallawaarachchi, *Anuradha S Wickramarachchi*, Yu Lin (20th International Workshop on Algorithms in Bioinformatics; WABI 2020)  
DOI: 10.4230/LIPIcs.WABI.2020.8

- **GraphBin: refined binning of metagenomic contigs using assembly graphs**

Vijini Mallawaarachchi, *Anuradha Wickramarachchi*, Yu Lin (Bioinformatics 2020)  
DOI: 10.1093/bioinformatics/btaa180

## SOFTWARE/TOOLS

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<i>Research Related</i>	Freely available at <a href="https://github.com/anuradhawick">github.com/anuradhawick</a> <ul style="list-style-type: none"><li>• LRBinner (PacBio/ONT reads clustering tool)</li><li>• MetaBCC-LR (PacBio/ONT reads clustering tool)</li><li>• PlasLR (Plasmid classification extension for PacBio/ONT reads)</li><li>• GraphPlas (Graph based plasmid classification extension tool)</li><li>• Seq2Vec fast memory mapped sequence vectoriser written in C++ (Boost)</li><li>• Seq2CovVec fast coverage vector computations for long reads written in C++ and Python</li></ul>
<i>Software Engineering</i>	Freely available at <a href="https://github.com/anuradhawick">github.com/anuradhawick</a> <ul style="list-style-type: none"><li>• Vinyl.LK (AWS Serverless/Atlas Mongo hosted website for Sri Lankan vinyl records)</li><li>• YOLO Object Annotation Maker</li></ul>

## AWARDS/ACHIEVEMENTS

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<i>Academic</i>	<ul style="list-style-type: none"><li>• ANU Merit Fee Remission Scholarship</li><li>• Deans list for all 8 semesters during BSc</li><li>• Mahapola Sri Lankan undergraduate scholarship (merit based)</li><li>• GCE Advanced Level Island Rank 68 (District Rank 4)</li></ul>
<i>Non-Academic</i>	National Awards <ul style="list-style-type: none"><li>• Merit Award - National Best Quality ICT Awards (NBQSA) Oct 2017 (Sri Lanka) for Final Year Honours Project</li><li>• Merit Award - National Best Quality ICT Awards (NBQSA) Oct 2016 (Sri Lanka) for Taxi Master Project</li></ul> Hackathons <ul style="list-style-type: none"><li>• First place: IDEA Challenge 2017</li><li>• Google IO 2016 1st Runners up May 2016</li><li>• First place: IDEA Challenge 2016</li></ul>

## SKILLS

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<i>Programming</i>	Python, C, C++, JAVA, JavaScript, NodeJS, etc <ul style="list-style-type: none"><li>• Industrial experience in ReactJS, MongoDB, AWS Serverless and AWS developer console.</li><li>• Research experience in python, C and C++.</li></ul>
<i>Tools/Frameworks</i>	Bioinformatics tools <ul style="list-style-type: none"><li>• Aligners - minimap(2), BLAST+, Edlib, etc</li></ul> Bioinformatics/Programming libraries <ul style="list-style-type: none"><li>• libminimap2, GATK, Edlib, biopython, etc</li><li>• Boost C++ library</li></ul> Machine Learning <ul style="list-style-type: none"><li>• Tensorflow, Pytorch, Sci-kit learn</li></ul>
<i>Languages</i>	English professional proficiency and Sinhalese native proficiency.

## ADDITIONAL INFORMATION

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<i>Interests</i>	Blogging, Travelling and Gaming
<i>Referees</i>	Available upon request.